



© REYNOLDS METALS CO.

How
you can
make things
with
REYNOLDS
DO-IT-YOURSELF
ALUMINUM*
with
ordinary tools

*TRADE MARK

REYNOLDS METALS COMPANY
Louisville, Kentucky



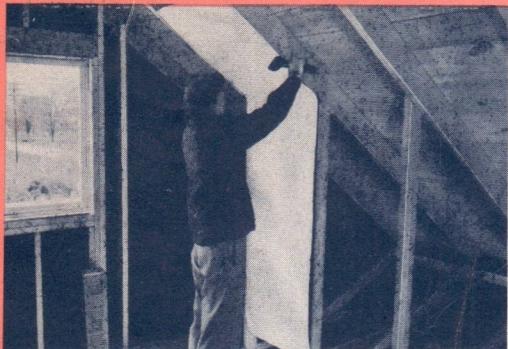


Here, in the Reynolds Home Workshop, extensive tests have been made to determine just what can be done with Reynolds Do-It-Yourself Aluminum.

We found, first of all, that most ordinary woodworking tools are suitable for working with Do-It-Yourself Aluminum. We found that this material will not damage workshop equipment any more than other materials generally classed in the "wood" category, whether the equipment be expensive power tools, or less costly hand tools.

For many years, the Reynolds Metals Company has made strong aluminum alloys, for industrial uses. Now, we have made available a special aluminum selected and engineered for you to make things with, using ordinary wood-working tools . . . Reynolds Do-It-Yourself Aluminum.

Aluminum, the Modern Metal, has long been indispensable in industry, and in the home. Reynolds Do-It-Yourself Aluminum now opens exciting new fields for the craftsman—its countless uses will make it commonplace in the home workshop. Additional aluminum products for Do-It-Yourself use around the home are shown below.



Make your house cooler with Reynolds Reflective Insulation.



Sealed tightly in Reynolds Wrap, paint brushes remain soft and flexible.

Reynolds Aluminum Gutters and Down-spouts are easy to erect; last a lifetime.



Reynolds Aluminum Nails protect against rust streaks.



"It's more than paint...it's Liquid Aluminum" . . . means maximum protection.



LOOKS LIKE THIS:



SHEET — embossed



TUBING



ROD



A variety of fasteners for Home Aluminum may be obtained at your dealer's.



BAR



SHEET — mill finish



CLEAR PLASTIC SHEET

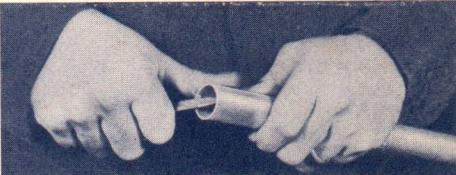


ANGLE

Reynolds Do-It-Yourself Aluminum is softer than tool steel, and so all ordinary hand tools can be applied to Do-It-Yourself Aluminum in the same manner as to materials classified in the "wood" category. While the user will be familiar with these tools, the following suggestions may be helpful:



An ordinary pair of household scissors or tin snips will readily cut sheet and foil.



A pocket knife will cut sheet or foil, and can be used to remove burrs from tube, rod, bar or angle.



Wood saws are satisfactory for cutting sheet, rod, tubing, angle or bar. Generally, the saw with a greater number of teeth per inch will be most effective. The use of paraffin or oil will lessen friction, and insure a maximum of accuracy.



Various hammers are indispensable in bending and forming Do-It-Yourself Aluminum. (Plastic-tipped hammers and rubber or wood mallets will help prevent marring or scratching of the metal).



A ball pein hammer may be used to emboss or indent Do-It-Yourself Aluminum sheet and bar.

CAUTION:

The recommendations and methods described here apply only to
REYNOLDS DO-IT-YOURSELF ALUMINUM

Other types of aluminum will be harder and may damage your tools.

Wear safety glasses or shield when using power tools.



HELPFUL HINTS



Accuracy should be a prime factor because mistakes are often difficult to correct. On a project which requires a great deal of bending or forming, extra time spent on accurate layout will pay off in a neater, more professional job.

An original idea for a project should, whenever possible, be measured and laid out on paper or cardboard. This can be bent or folded into the desired pattern — either full or part-scale. The paper or cardboard test pattern can then be used to lay out the actual project on aluminum.

A pencil, crayon, sharp nail or scribe may be used for marking Do-It-Yourself Aluminum, but avoid scribing too deeply.

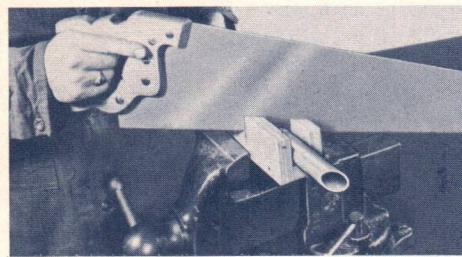
A strip of adhesive, friction or masking tape wrapped around the tubing or rod at the point of cutting will provide a guiding line and improve accuracy.

Auto wax on finished items will maintain bright finish.

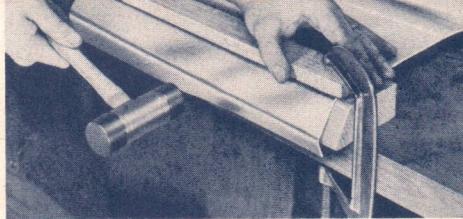
Use aluminum nails, rivets, chrome or cadmium plated sheet metal screws and bolts to avoid rust and corrosion.



This marking gauge or saw guide, which resembles a hose clamp, is useful when making a series of free-hand cuts on rod or tubing.

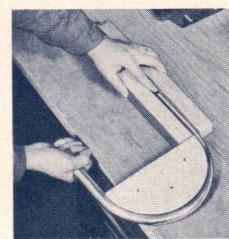


A simple wood miter box can be easily constructed for making a number of accurate cuts.



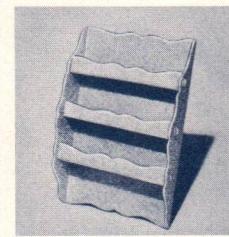
Sheet may be bent over any suitable straight strip of wood placed along the bend, by tapping with a hammer. This will correct slight flaws, wrinkles, or dents.

A sheet bending device to fit a particular need may be made by sawing a slot or groove lengthwise in a piece of wood, using a bench saw. The slot or groove is sawed to the depth of the desired bend or brake. Or clamp a piece of wood on each side and bend.



To create a rolled edge, saw a slot lengthwise in a dowel rod or broom handle of desired size. Insert sheet in slot and wrap around by hand.

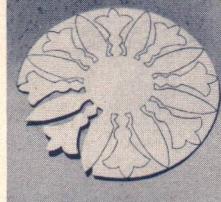
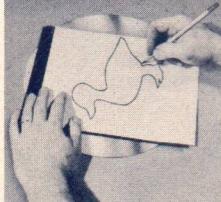
To bend aluminum tubing, pack with wet sand and bend around an object of desired diameter. A 4-inch radius is about the minimum practicable with sand and 7½-inch radius without. (To fill tubing, tamp in bucket of wet sand.)



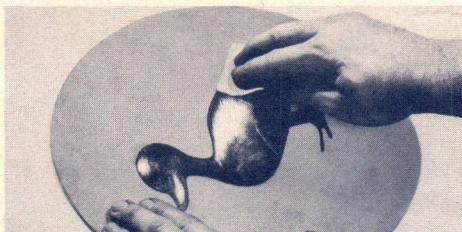
In many cases Do-It-Yourself Aluminum itself can be bent and formed to make the object self-supporting (mechanically interlocked).



A hinge may easily be cut and bent, using a piece of wire coat hanger for the hinge pin.



Wherever a design is to be reproduced, a template or stencil may be used. Or the design may be laid out full scale on paper and traced through onto the aluminum using carbon paper and a sharp pencil.



The design can then be developed by using sandpaper, emery cloth, crocus cloth, or other abrasive or tools. Or it can be embossed or chemically etched as detailed below:



Numerous tools, including ball peen hammers, nail sets, and punches, may be employed to produce embossed designs.

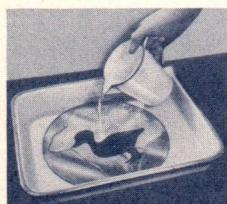
For an etched pattern, first the portions of the surface to remain shiny are blocked out by covering with "T" asphaltum (using turpentine as solvent) or black stove polish, of creamy consistency. Two coats may be required to get complete coverage.



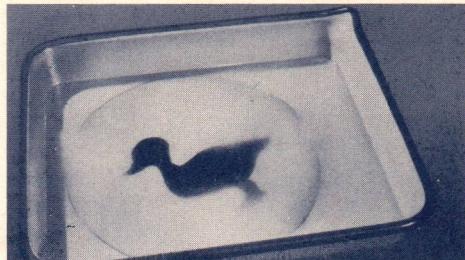
Etching can be done with 50% muriatic acid and remainder water. When mixing, BE SURE TO POUR THE ACID INTO THE WATER . . . NEVER WATER INTO THE ACID. Wear rubber gloves and an apron. Avoid contact with hands or clothes.

Store and mix acid only in glass or crockery. Household lye can also be used if acid is not available.

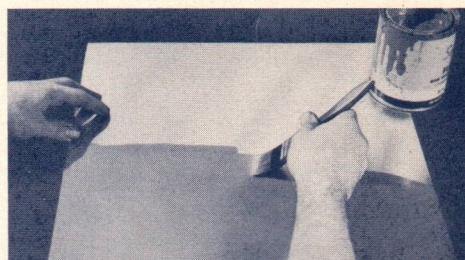
Cover metal surface with the solution. Pour off when boiling ceases (15-60 minutes). Make second application if deeper etch is desired.



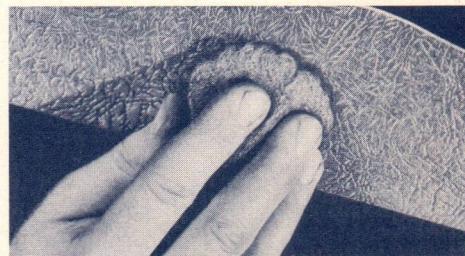
FINISHING



After etching, rinse with water and remove the blocking with turpentine, kerosene, benzine, or white gasoline, using a soft cloth to prevent scratching. Wash with hot soapy water and dry. The work can be left this way or polished with 000 steel wool and powdered pumice.



Reynolds Do-It-Yourself Aluminum can be painted, enameled or lacquered with excellent results providing surface is properly cleaned first. Use steel wool, fine sandpaper, mineral spirits or lacquer thinner. Or wash with vinegar and rinse with clear water. Avoid touching the cleaned surface before painting, as natural oils from the skin may prevent proper bonding.



Character of embossed aluminum can be enhanced greatly by painting and then scrubbing off upper surfaces with steel wool after paint has dried, leaving paint in depressed portions of the design, and producing beautiful antique effects.

PROJECT 1



Fish Landing Net

A 2-hour project. Size of net frame and length of handle can be altered to fit your fishing needs.

1. Cut tubing to length
2. Lay out pattern on paper
3. Form $\frac{3}{8}$ " rod to pattern as close as possible
4. Install net on frame and insert in handle
5. Form end of tubing as shown in Figs. A, B and C with frame inserted
6. Attach frame to handle with self-tapping screws

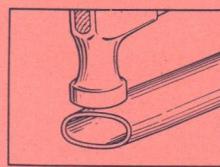
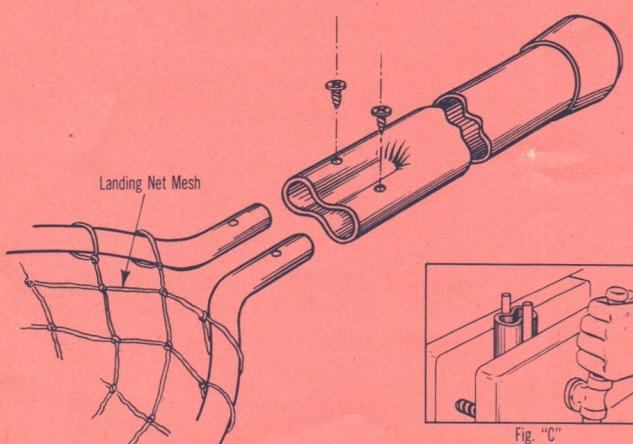
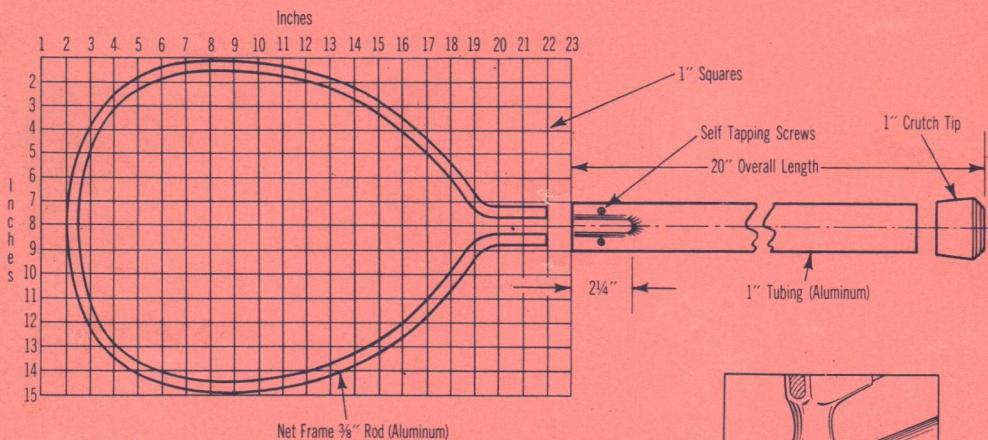


Fig. "A"

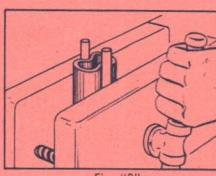


Fig. "C"

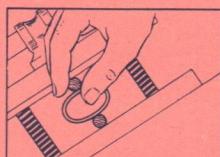
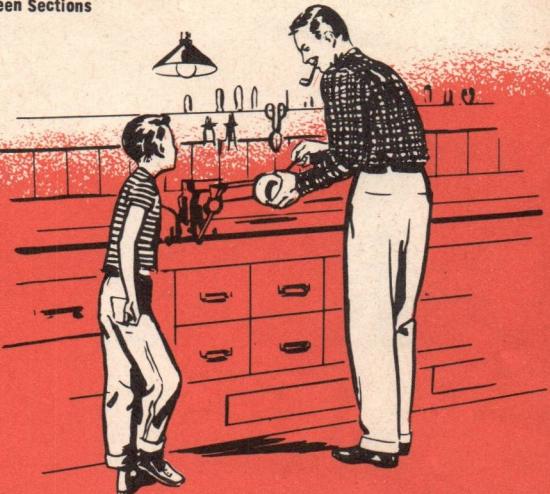
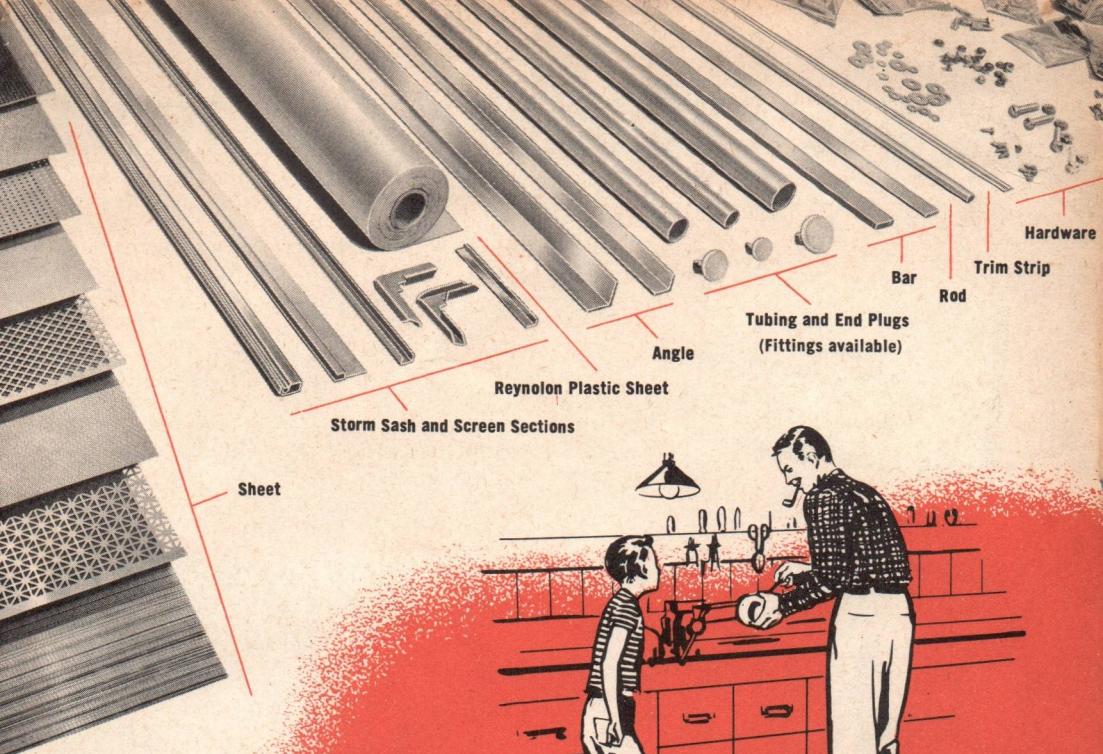
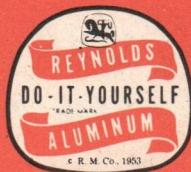
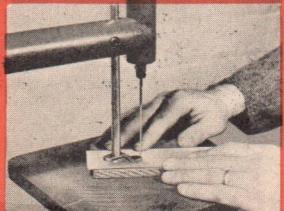


Fig. "B"



IT'S EASY TO MAKE THINGS WITH

REYNOLDS DO-IT-YOURSELF ALUMINUM



... use ordinary tools

USE ORDINARY HAND TOOLS..



From *Reynolds*—long a leader in the development of strong aluminum alloys for American industry—comes a *revolutionary new product* for the American home handyman.

It's Reynolds new DO-IT-YOURSELF Aluminum!

Do-It-Yourself Aluminum was developed especially for use with ordinary wood-working tools. Consequently, it's completely safe for all hand and power tools. And its project possibilities are virtually limitless. Try it—*yourself!*



Wood saws are satisfactory for cutting *Do-It-Yourself Aluminum*. Generally saws with a greater number of teeth per inch will cut more evenly and cleanly. The use of paraffin or oil will eliminate any tendency to bind.



Nothing illustrates this material's workability better than the simple action shown above. *Do-It-Yourself Aluminum* has been called the metal you can whittle. Use pocket knife to cut it or to remove burrs after sawing.



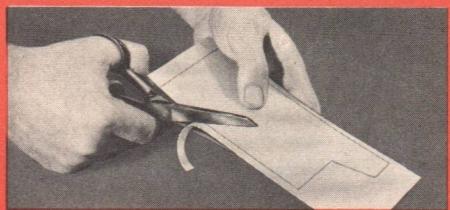
Ordinary wood planes are suitable for planing *Do-It-Yourself Aluminum* sheet, bar or angle stock. Light cut is recommended; bear down to minimize chatter. Where practicable, clamp in vise between wood blocks.



Various hammers are indispensable in bending and forming *Do-It-Yourself Aluminum*. (Plastic-tipped hammers and rubber or wood mallets will help prevent marring or scratching the metal.)

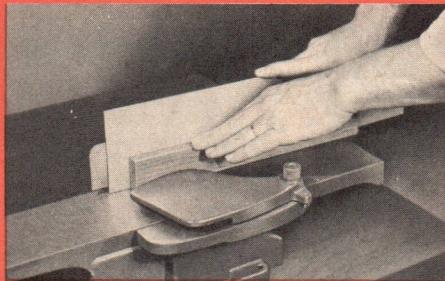
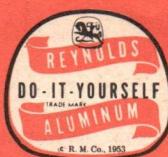


Conventional wood expansion bits are very effective for boring holes in sheet. Regular auger bits work equally well. Always back up sheet with wood to pull bit in and to prevent gouging or bending metal.



A pair of ordinary household scissors or tin snips will readily cut sheet. Scissors are actually easier to use for intricate curves. Always be sure your tools are sharp: dull edges tend to tear metal.

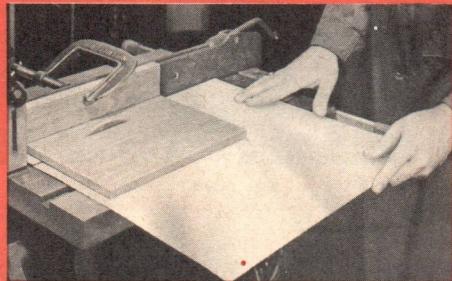
..OR POWER TOOLS



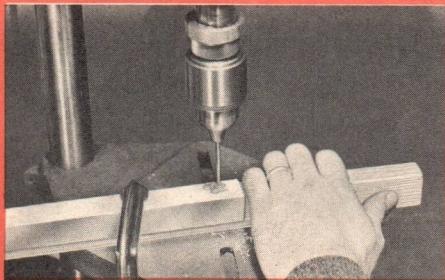
The edges of Reynolds *Do-It-Yourself* Aluminum sheets can be planed smooth, cut to an exact size or tapered on an ordinary wood-working jointer.

A slight or shallow cut is recommended in order to prevent chatter or vibration.

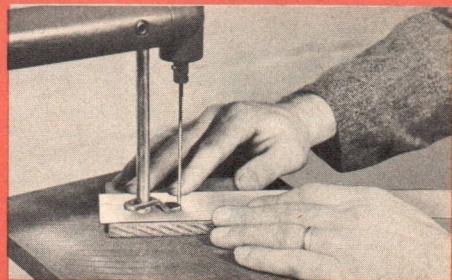
The application of paraffin or candle wax to the jointer table and fence will eliminate any binding or dragging action of metal against metal. Use standard blades with Reynolds *Do-It-Yourself* Aluminum.



An ordinary combination blade works best when cutting *Do-It-Yourself* Aluminum with your power saw. Rip, cross cut or carbide tipped blades may also be used. The work may tend to rise up from the saw; this can be overcome by making a plate from a small section of plywood or solid wood, and clamping or screwing it to the saw fence or guide. Blade should saw into wood plate—eliminating metal's tendency to rise. This will also help prevent flying metal chips.



Drill holes with metal bits, wood bits or circle cutters. Auger type bits can be used if lead screw is ground to point and tine cut off. In using drill press, clamp work to table. Oiling is optional.



Use jig saw with ordinary wood blades, metal cutting blades or jig saw files. A thin sheet of wood under the aluminum when jig sawing will be helpful.



The recommendations and methods described here apply only to REYNOLDS DO-IT-YOURSELF ALUMINUM. Make sure the aluminum you buy carries the Reynolds Seal . . . other types of aluminum may be harder and damage your tools.

CAUTION:

Wear safety glasses or shield when using power tools.

IT'S EASY TO

TO MARK

Accuracy is of utmost importance. Whenever possible, an original plan should be measured and laid out full-scale on paper or cardboard, which can be bent or folded into the desired pattern.

TO CUT

This marking gauge or saw guide, which resembles a hose clamp, is useful when making a series of free-hand cuts on rod or tubing. Or — a strip of adhesive, friction or masking tape may be used instead to provide a guide line. A simple wood miter box can be easily constructed for making a number of accurate cuts.

TO BEND

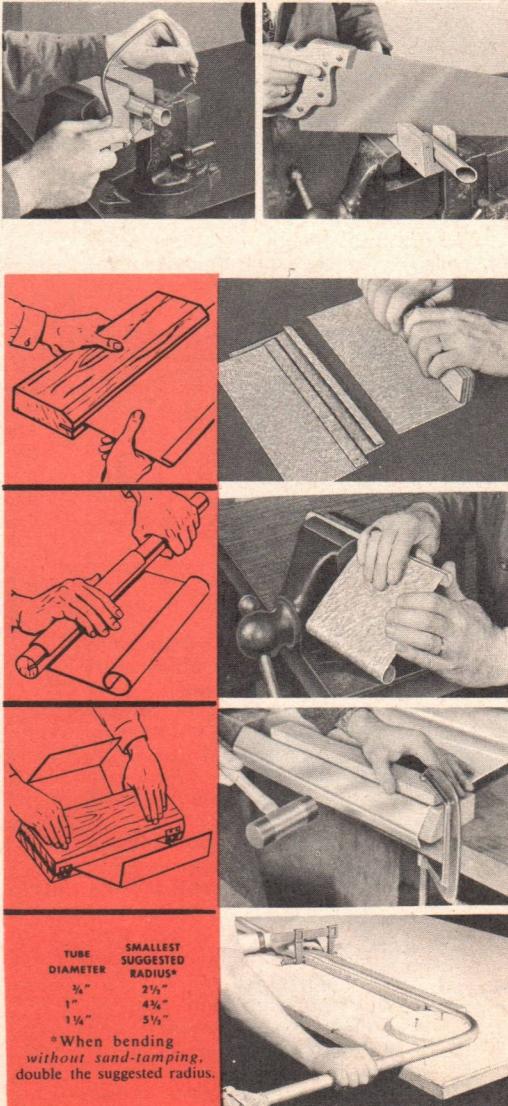
NARROW BENDS, tab or fold-overs are easy with a piece of hardwood run over the circular saw. Kerf depth governs width of bent flange. Bevel alongside kerf as shown. To use, insert aluminum and fold past desired angle, as metal springs back a bit. For folded edge, bend as far as possible, remove from jig, press down with flat wood.

ROLLED EDGE is formed with a wooden dowel slightly smaller in diameter than desired roll. On the circular saw, cut a $\frac{1}{4}$ " to $\frac{3}{8}$ "-deep kerf along the dowel. Insert edge of sheet aluminum, and holding it firmly against a flat surface, roll or twist the dowel to wrap the metal around it, being sure to keep dowel straight.

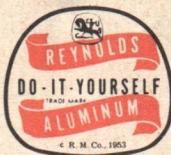
SHEET may be bent over straight or beveled strip of wood as shown in photo. Home made bending break consists of two pieces of hardwood hinged together as shown. Before applying hinges separate blocks by approximate thickness of aluminum sheet.

TO BEND, tightly pack tube with damp sand. Test sand by cupping in hands; if it is too dry, sand falls apart, if it is too wet, water will squeeze out. Secure end of tube (protected by wood strips) in C-clamp and bend around $\frac{3}{4}$ " plywood disc with slow steady pressure. Minimum suggested radii are given in chart.

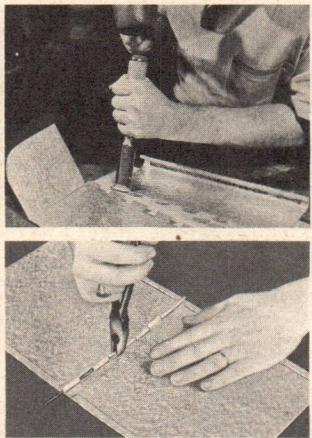
The paper or cardboard test pattern can then be used to lay out the actual project on aluminum. A pencil, crayon, sharp nail or scribe may be used for marking *Do-It-Yourself Aluminum*. However, avoid scrib-ing too deeply.



WORK WITH



TO MAKE A HINGE

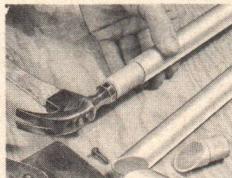


Scribe a pattern on sheet. Cut sides of one sheet of tabs by cutting into sheet with scissors. Finish cutting out metal between tabs, using wood chisel. (Make sure sheet is backed up with wood block.) Use this finished section to mark tabs on other piece of sheet. Complete cutting tabs as before. Make sure cuts are offset by width of tabs. Fold tabs around straight piece of wire. Wire from coat hanger serves very well.

TO MAKE BASIC JOINTS



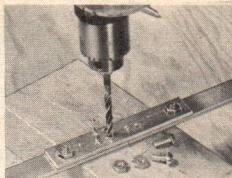
Saw out circle in larger diameter tube. Drive wood plug into smaller diameter tube. Fit both together and secure with small screws.



Drive wooden plugs into tube. Make 45° cuts using simple miter box. Glue and screw together.



Cut angle stock. Bend to desired angle. Strengthen joint by riveting on triangular section.



Join bar ends with cleat. Put first bolt in place, then drill for others through both parts at one time.



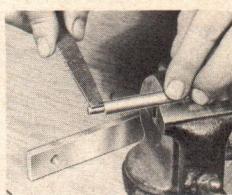
Make joining "sleeve" by cutting out section $\frac{5}{16}$ " wide for 1" tubing. Squeeze into tubes. Secure with self-tapping screws.



Sheet-to-tube joints are made by sawing slit into tube, inserting sheet and securing grip by bolts as shown.



When cutting off rivets leave one and one-half times diameter extending above surface of work. Up set rivets by peening.



To join $\frac{3}{8}$ " rod to bar, file rod end to $\frac{1}{4}$ " diameter. Countersink $\frac{1}{4}$ " hole in bar. Insert rod. Peen over, file flush.

OTHER REYNOLDS ALUMINUM PRODUCTS FOR USE AROUND THE HOME



Reynolds Aluminum Gutters and Downspouts are easy to erect; last a lifetime.



Make your house cooler with Reynolds Reflective Insulation.



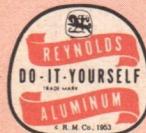
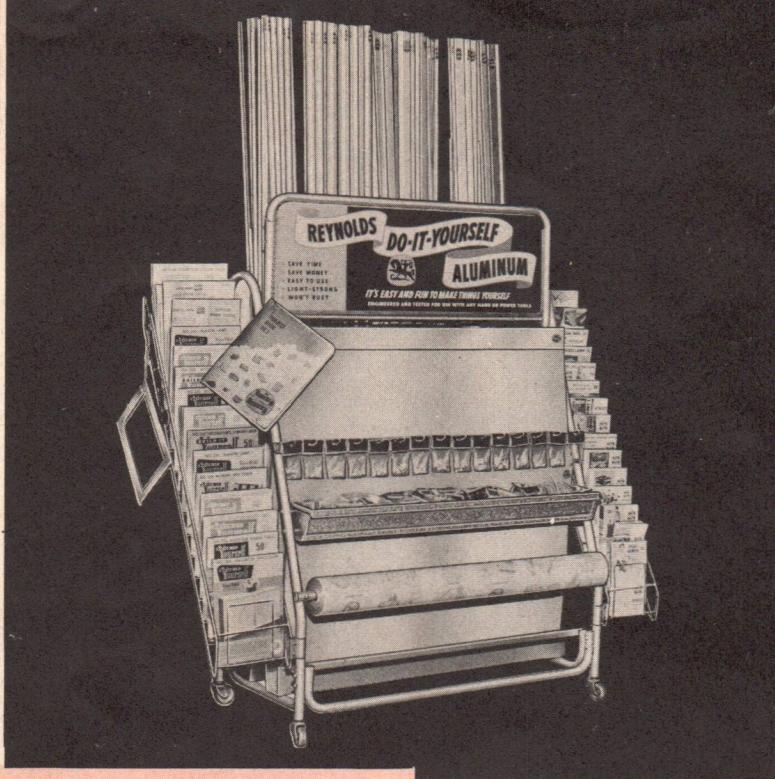
Reynolds Aluminum Nails protect against rust streaks and stains.



Sealed tightly in Reynolds Wrap, paint brushes remain soft and flexible.



Bright Idea — Liquid Aluminum protects beautifully. Made by leading paint manufacturers.



**Look for the
SELF-SERVICE CENTER at
your hardware store, department
store or building supply dealer.**

ITEM NO.	DESCRIPTION	RETAIL PRICE
SHEET (all sheet 36" x 36" except 2a)		
1	Plain sheet.....	\$2.49/sheet
2	Leather grain embossed.....	2.69/sheet
2a	Leather grain embossed—18" x 36".....	1.39/sheet
27	Wood grain embossed.....	2.69/sheet
28	Square embossed.....	2.69/sheet
31	Cloverleaf perforations in stucco embossed.....	2.98/sheet
32	Round hole perforations in plain sheet.....	2.98/sheet
33	Lincane perforations in plain sheet.....	2.98/sheet
34	Union jack perforations in plain sheet.....	2.98/sheet
WINDOW SCREENS (frame member using plastic spline)		
15	Screen frame section—6 ft. lengths.....	\$.09/length
15a	Screen frame section—8 ft. lengths.....	.32/length
17	Plastic spline—100 ft. per spool.....	.025/lin. ft.
18	Corner clips.....	.33/4 locks banded
19	Screen forming tool.....	.27/tool
WINDOW SCREENS (frame member using aluminum spline)		
24	Screen frame section with spline—6 ft. lengths.....	\$.14/length
24a	Screen frame section with spline—8 ft. lengths.....	1.49/length
24b	Screen frame section with spline—12 ft. lengths.....	2.19/length
25	Corner locks.....	.33/4 locks banded
38	Splicer.....	.10/each
ACCESSORY ITEMS FOR USE WITH BOTH TYPE FRAME MEMBERS		
16	Brace for screen frame—6 ft. lengths.....	\$.75/length
16a	Brace for screen frame—8 ft. lengths.....	.99/length
26	Hardware kit.....	.39/envelope
13	Reynoln plastic film.....	.25/lin. ft.
GLASS STORM SASH (extruded frame member)		
11	Storm sash frame member—5 ft. lengths.....	\$.05/length
12	Storm sash frame member—6 ft. lengths.....	1.26/length
12a	Storm sash frame member—8 ft. lengths.....	1.68/length
45	Single storm sash hardware kit.....	.69/envelope
46	Double storm sash hardware kit.....	1.29/envelope
47	Flat corner brace.....	.08/brace
	with 4 bolts and nuts	

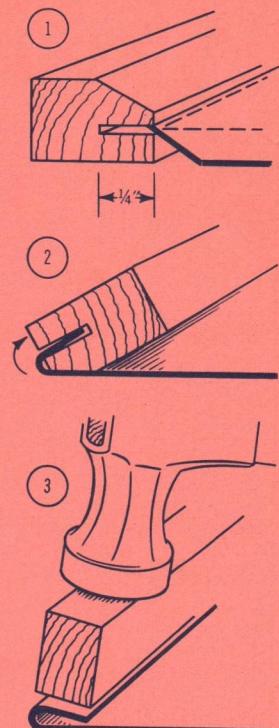
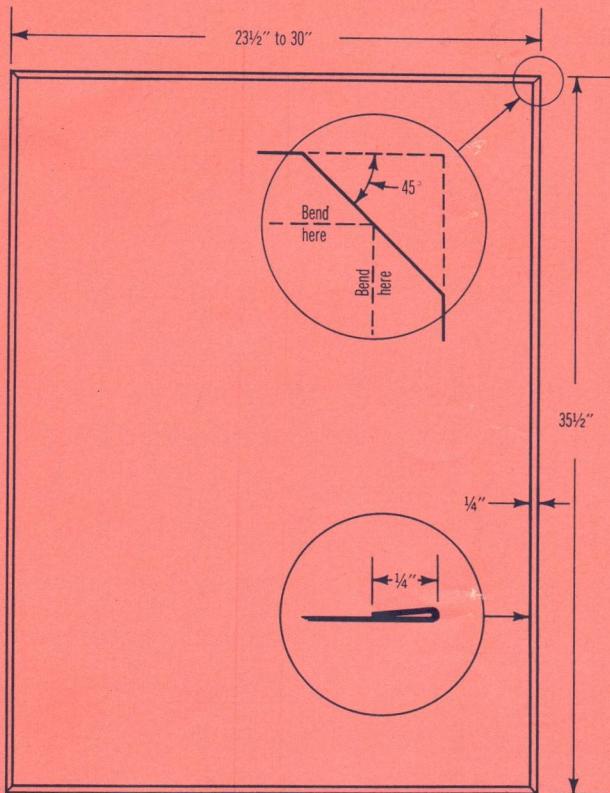
ITEM NO.	DESCRIPTION	RETAIL PRICE
GLASS STORM SASH (roll form frame member)		
30	Storm sash frame member—6 ft. lengths.....	\$1.09/length
30a	Storm sash frame member—8 ft. lengths.....	1.45/length
25	Corner locks.....	.33/4 locks banded
26	Hardware kit.....	.39/envelope
37	Interchangeable screen-storm sash hardware kit.....	.98/envelope
38	Splicer.....	.10/each
4	1/8" x 3/4" bar—6 ft. lengths.....	\$1.59/length
4a	1/8" x 3/4" bar—8 ft. lengths.....	2.12/length
5	1/4" x 1" bar—6 ft. lengths.....	1.98/length
5a	1/4" x 1" bar—8 ft. lengths.....	2.64/length
6	1" x 1" x 1/16" angle—6 ft. lengths.....	\$1.89/length
6a	1" x 1" x 1/16" angle—8 ft. lengths.....	2.52/length
7	3/4" x 3/4" x 1/8" angle—6 ft. lengths.....	1.69/length
7a	3/4" x 3/4" x 1/8" angle—8 ft. lengths.....	2.26/length
8	3/4" O.D. x .049" tubing—6 ft. lengths.....	\$1.49/length
8a	3/4" O.D. x .049" tubing—8 ft. lengths.....	1.98/length
9	1" O.D. x .049" tubing—6 ft. lengths.....	1.59/length
9a	1" O.D. x .049" tubing—8 ft. lengths.....	2.12/length
10	1 1/4" O.D. x .058" tubing—6 ft. lengths.....	1.98/length
10a	1 1/4" O.D. x .058" tubing—8 ft. lengths.....	2.64/length
6	1" x 1" x 1/16" angle—6 ft. lengths.....	\$1.89/length
6a	1" x 1" x 1/16" angle—8 ft. lengths.....	2.52/length
7	3/4" x 3/4" x 1/8" angle—6 ft. lengths.....	1.69/length
7a	3/4" x 3/4" x 1/8" angle—8 ft. lengths.....	2.26/length
8	3/4" O.D. x .049" tubing—6 ft. lengths.....	\$1.49/length
8a	3/4" O.D. x .049" tubing—8 ft. lengths.....	1.98/length
9	1" O.D. x .049" tubing—6 ft. lengths.....	1.59/length
9a	1" O.D. x .049" tubing—8 ft. lengths.....	2.12/length
10	1 1/4" O.D. x .058" tubing—6 ft. lengths.....	1.98/length
10a	1 1/4" O.D. x .058" tubing—8 ft. lengths.....	2.64/length
TUBING FITTINGS (for 3/4", 1" and 1 1/4" tubing)		
48	Wall and floor flange for 3/4" tubing.....	\$.35/each
49	Wall and floor flange for 1" tubing.....	\$.35/each
50	Wall and floor flange for 1 1/4" tubing.....	.40/each
51	T-butt connector for 3/4" tubing.....	.30/each
52	T-butt connector for 1" tubing.....	.35/each
53	T-butt connector for 1 1/4" tubing.....	.40/each
54	90° elbow for 3/4" tubing.....	.50/each
55	90° elbow for 1" tubing.....	.55/each
56	90° elbow for 1 1/4" tubing.....	.75/each
END PLUGS (spring actuated, snap-in plugs for ends of tubing)		
42	3/4" end plugs.....	\$.03/plug
43	1" end plugs.....	.04/plug
44	1 1/4" end plugs.....	.05/plug
3	3/8" dia. cold finished rod—6 ft. lengths.....	\$1.19/length
3a	3/8" dia. cold finished rod—8 ft. lengths.....	1.59/length
14	5/8" x .025" trim strip—6 ft. lengths.....	\$.69/length
MACHINE SCREWS AND NUTS		
	Machine screws and nuts.....	\$.25/bag
	Assorted washers.....	.25/bag
	Sheet metal screws.....	.15/bag
	Fiat head wood screws.....	.15/bag
	Brazier head rivets.....	.15/bag

Oil Drip Pan

Every car owner needs this drip pan . . . a project that well demonstrates how easy it is to bend Do-It-Yourself Aluminum.

1. Cut to overall dimensions
2. Notch corners
3. Make simple bending block (also suitable for future projects)
4. Bend as shown

PROJECT 2



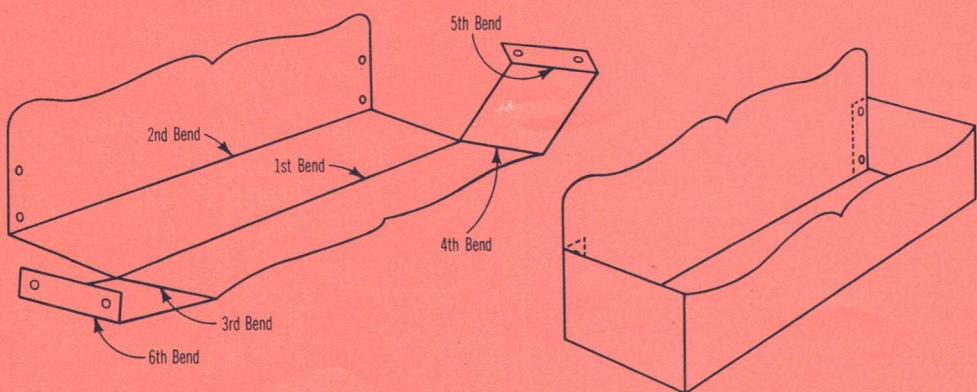
PROJECT 3



Spice Rack

This suggested design can easily be modified to fit your own ideas as to size and color.

1. Layout pattern on embossed sheet
2. Cut out sheet
3. Form in sequence indicated
4. Drill holes for fasteners
5. Install fasteners
6. Drill holes for mounting (if desired)
7. Paint desired color
8. Highlight with steel wool



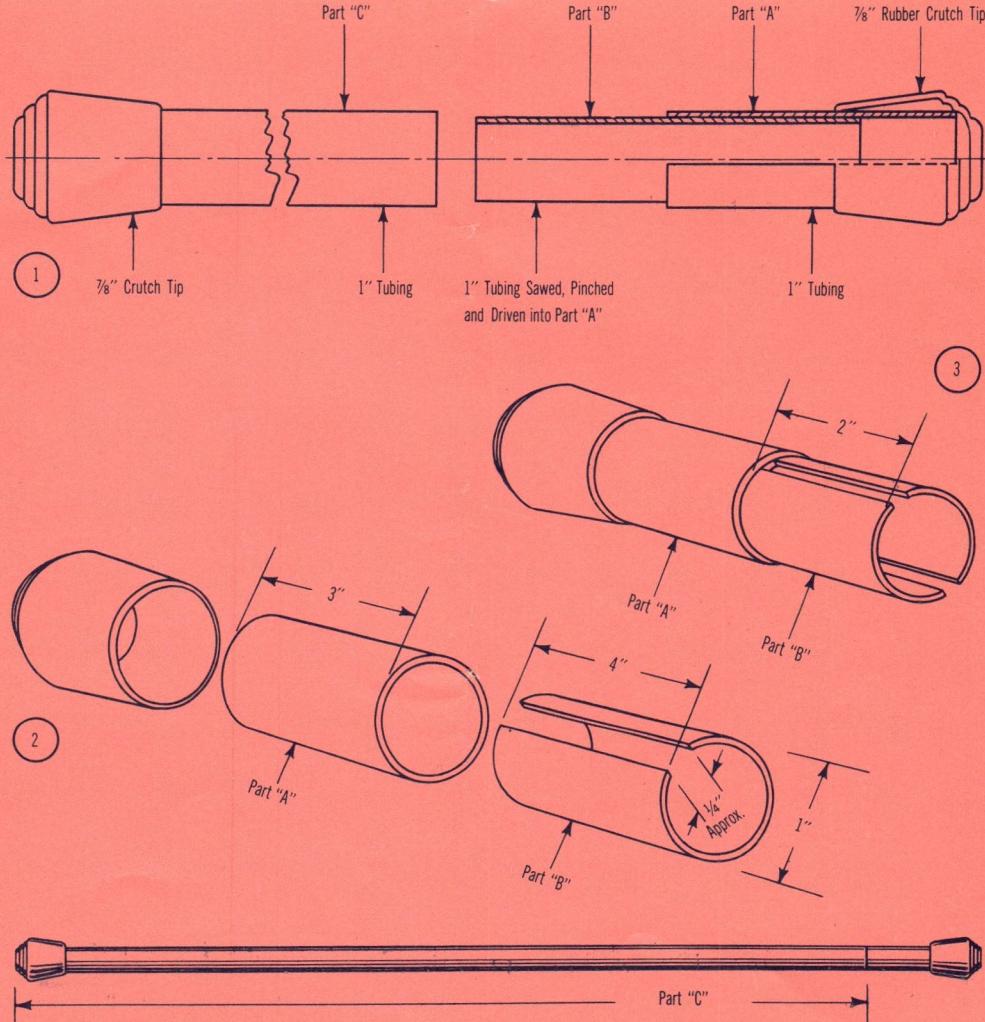
Fishing Rod Case

Plugged at one end, 1-inch Do-It-Yourself Aluminum tubing also makes an ideal shield to fit inside your canvas case.

1. Cut "A" and "B" to length shown
2. Cut "C" to approximately 2 inches shorter than your rod
3. Cut $\frac{1}{4}$ -inch slot full length of "B"
4. Fit "B" into "A" (The two sides of slot should butt together to allow a drive fit.)
5. Saw a double slot (saw width) in part "B" to allow a slip fit into Part "A", (follow line of first slot, step 4)
6. Add crutch tips

Note: Steps 3 and 4 can be used any place it is desired to permanently connect two lengths of tubing

PROJECT 4



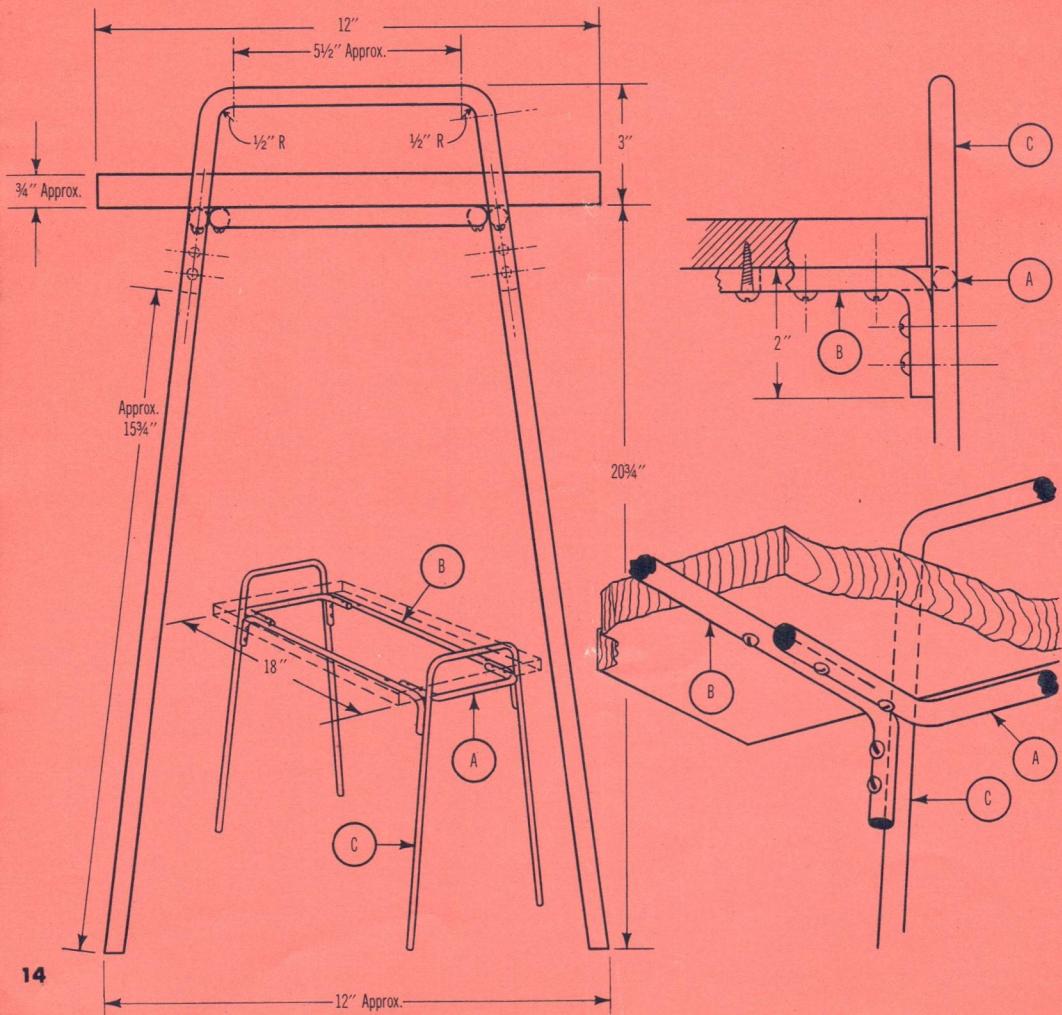
PROJECT 6



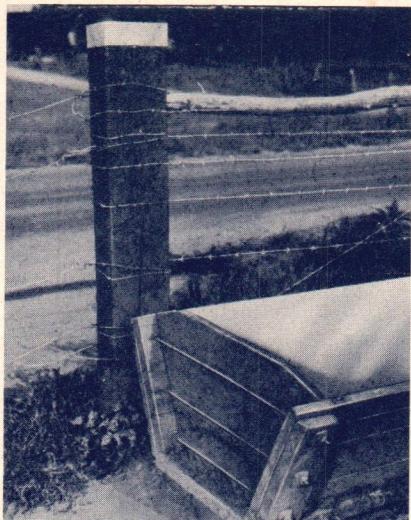
Occasional Table

A special feature is Part "A" which allows tables to be nested without damaging table tops.

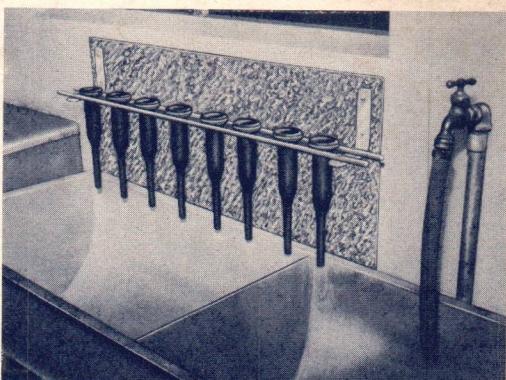
1. Cut two "A" members to $12\frac{5}{8}$ inches
2. Cut two "B" members to 22 inches
3. Cut two "C" members to 50 inches
4. Bend A's and B's to right angles
5. Bend C's around form block
6. Cut C's to length
7. Make and finish top
8. Assemble B's to C's with self-tapping screws and attach top
9. Attach A's to top



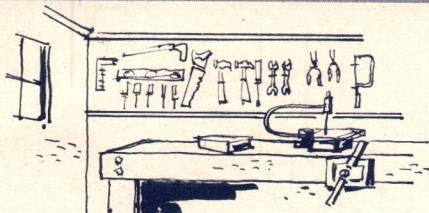
Ideas for the Farm



Cap for corner post helps lengthen life of fence at vital point. Watering trough below is lined with non-rusting aluminum.



Sanitary, non-rusting rack for holding inflation tubes used on milking machines is easily made from $\frac{3}{8}$ " rod, 1" x $\frac{1}{4}$ " bar, and plain or embossed aluminum sheet.



Miscellaneous Projects.

Ash Trays	Bird Cages	Drapery and	Hat Racks
Auto Back Window	Bird Feeders	Curtain Rods	Heat Reflectors
Ledge Covers	Boys' Push Mobiles	Drawer Bottoms	for Camp Stoves
Auto Body Repairs	Brackets	Drawer Liners	House Numbers
Auto Fender Skirts	Card Table Covers	Dust Pans	Kick Plates for
Auto Floor Repairs	Children's	Fishing Tackle	Doors
Auto Head Light	Notebooks	Boxes	Kitchen Work
Visors	Children's Tables	Flashing	Surface Coverings
Auto Kick Pads	Clothes Chutes	Floor Lamps	Lamp Reflectors
Auto Radiator	Closet Rods	Floor Patching	Lamp Shades
Covers	Clothes Line Props	Flower Pot Racks	Lawn Carts
Auto Tire Wells	Coasters	Flower Pot Saucers	Lawn Chairs
Auto Trunk	Coaster Wagon	Flower Stands	Lawn Furniture
Bottoms	Bed Covers	Flour Bin Liners	Lawn Signs
Awnings	Coat Hangers	Flue Covers	Lawn Table Tops
Barbecue Skewers	Coffee Tables	Furniture Repairs	Lazy Susans
Belt and Pulley	Cookie Cutters	Furnace Pipe	Letter Holders
Shields	Cookie Sheets	Repairs	Light Reflectors
Bicycle Fender	Covers for Drain	Garden Hose	for Yards,
Pants	Boards	Extensions	Outbuildings
Bicycle Sheds	Desk Lamps	Grass Catchers	Lining Wall
Bird Cage Bottoms	Drapery Brackets	Handles	Cabinets

(Cont'd on Next Page)

Luggage Racks
Mail Boxes
Match Box Holders
Mop Handles
Outdoor Signs
Outside Lamp Posts
Ornamental Gates
Pet Shelters
Picture Frames, Table Type
Picture Frames, Wall Type
Porch and Garden Rails
Push Plates for Doors
Porch Railings
Radiator Humidity Pans

Radiator Shields
Radio and TV
Antennas
Renewing Step Edges
Roof Repairs
Safety Shields for Power Tools
Saw Table Extensions
Screen Corner Braces
Screen Door Push Bars
Serving Trays
Shelf Liners
Shelving
Shields for Insects, Mice, Rats

Shoe Racks
Shower Rods
Silent Butlers
Small Drawers
Spice Racks
Sprinklers
Stoop Roofs for Doorways
Stove Exhaust Hoods
Sun Reflectors for Flowers
Surfacing Wall Cabinets
Table Lamps
Termite Shields
Threshold Repairs
Tie Racks
Tool Boxes
Tool Sheds

Towel Racks
Tray Liners for Highchairs
Trim for Cabinets, Sinks
Various Braces
Vegetable Bins
Vegetable Bin Liners
Vent for Electric Driers
Water Deflectors
Weather Vanes
Window Awnings
Window Sill Coverings
Window Ventilator (Louver Type)

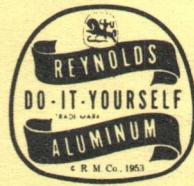
FORM 38—WB

LITHO IN U.S.A.



1. Aluminum Flowers and Pot
2. House Number and Bracket
3. Shoe Shine Stand
4. Outside Flower Stand
5. Treasure Chest (Jewel Box)
6. Aluminum Birds, Bird House and House Number
7. Toy Chest
8. Waste Paper Basket
9. Magazine Rack

How To Make



ALUMINUM STORM SASH

WITH ROLL FORMED FRAME MEMBER, ITEM #30, 30a

Constructing the Frame

MATERIALS REQUIRED:

Rolled Aluminum Storm Sash Section
With Glazing Channel (Item #30)
Corner Locks (Item #25)
Single or Double-Strength Glass

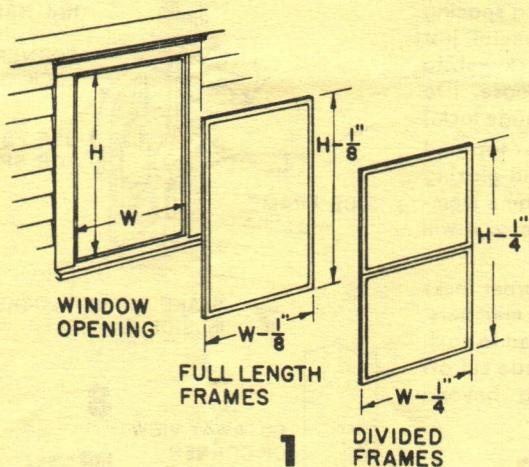
Reynolds roll formed storm sash are easy to put together and install. If your windows are 9 sq. ft. or less, you may install single full length storm sash. On larger windows, storm sash should be divided into two panels.

1 Measure window opening just outside the blind stop around the frame. Storm sash frame when completed should fit against face of the blind stop in window opening. When building divided frames you may divide the height equally or you may construct your storm sash so that the joining line matches the joining line of window rails.

2 Glazing channels that seal edges of the glass are furnished with the storm sash section. Pull these plastic channels out and lay them aside until later.

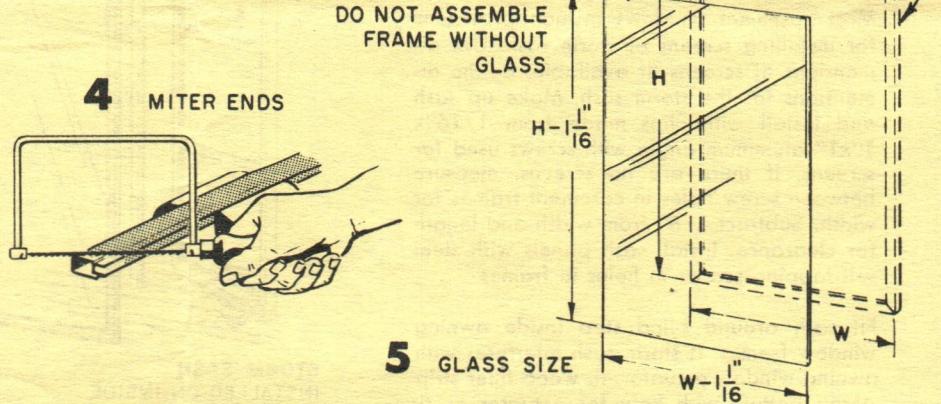
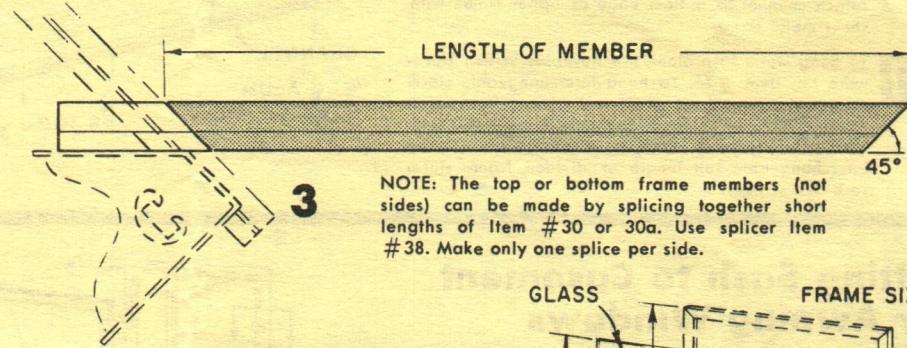
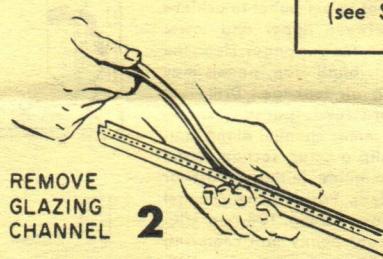
3 Mark ends of frame members to length using measurements obtained in Step #1. Scribe 45° angles with a try-square at each end of frame members for miters.

4 Miter ends of frame members by cutting along 45° markings with a fine-toothed coping or hack saw. Smooth sawed ends with a small file or garnet paper wrapped around a wood block.



For Interchangeable Screens

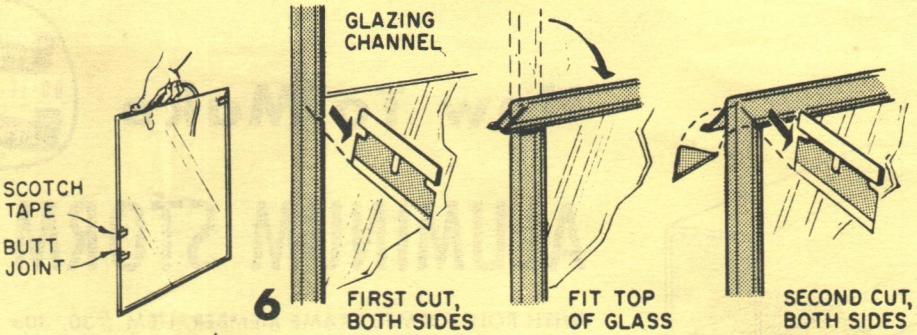
Screens made of frame member item #24 (Instruction Sheet #21) are interchangeable with these storm sash. If you make storm sash with divided frames (see 1 right), top section may be kept installed the year around and bottom section replaced with a half-screen each summer. If divided frame construction is planned, be sure to purchase complete hanger set, item #37 (see Step 11).



Inserting Glass

5 Figure glass size needed and order glass panes cut to exact sizes to fit frame. Width of glass pane should be $1\frac{1}{16}$ " less than outside width of frame. Height of pane should be $1\frac{1}{16}$ " less than outside height of frame. Rather than attempt to cut glass yourself, order it already cut to your dimensions. Glass must be cut accurately to size and corners must be square for frame to assemble properly. Use single-strength glass in small panes (up to 6 sq. ft.); double-strength glass for large panes (over 6 sq. ft.). The glazing channel permits storm sash section to fit both glass strengths.

6 Stretch the glazing channel around edges of glass. Start at one corner and hold end of glazing channel in place with cellophane tape down one side from the corner about 1". Trim out pie-cuts at the corners with a single-edge razor blade. Cut only part way up to corners to prevent breaking the glazing channel. Use butt joint to join lengths of glazing channel on glass, holding ends with cellophane tape.



7 Push corner locks into both mitered ends of side frame members. Stake these corner locks in place with a 16-penny nail. Use a scrap piece of the sash section for a spacing guide. Nail should pierce the metal just behind the edge of the corner lock web to keep the frame from working loose. (Do not drive nail hard enough to damage lock.)

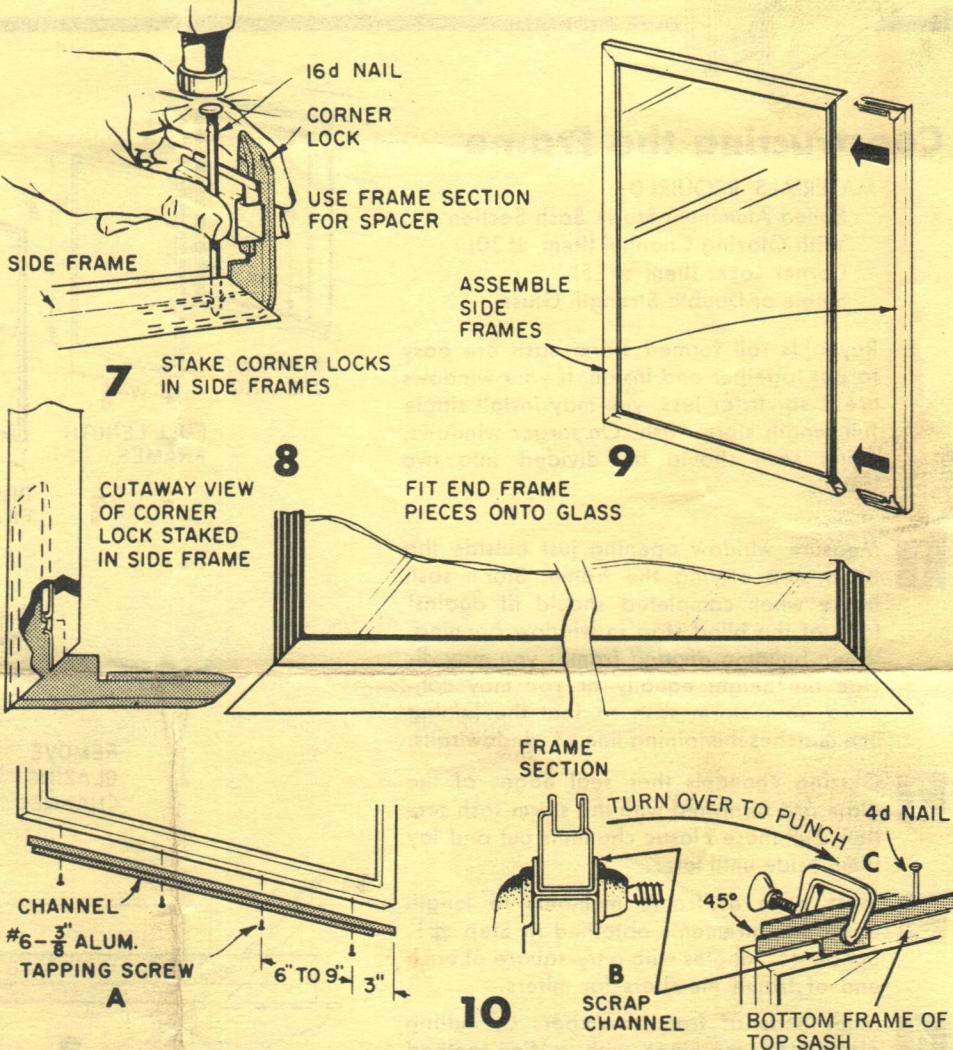
8 Assemble end frame members over top and bottom ends of the glass pane and glazing channel. Be sure to center end frame member between edges of glass pane so it will match with side members.

9 Add side frame members (with corner locks already in place) to end frame members. These have already been assembled to each end of glass pane. With razor blade cut off any cellophane tape protruding beyond glazing channel.

Installing Storm Sash

10 On divided frames use channel brace, Item 16, fastened along bottom edge of upper panel to achieve a virtually airtight joint between upper and lower panels. Miter channel ends so inner flanges clear the blind stop. (If flange contacts blind stop, panels may be held away, thus allowing air leakage.) Drill $\frac{1}{4}$ " diameter holes in channel for screws, spaced as shown in Fig. 10A, and deburr. To center channel along bottom edge of upper panel, slip a scrap section of the channel over the frame as a guide (either before or after storm sash is assembled). Position the channel and clamp it in place as shown in Fig. 10B and 10C. Punch holes in frame with four penny nail centering nail in drilled holes in channel as shown in Fig. 10C. Attach channel to bottom edge of upper frame with sheet metal screws.

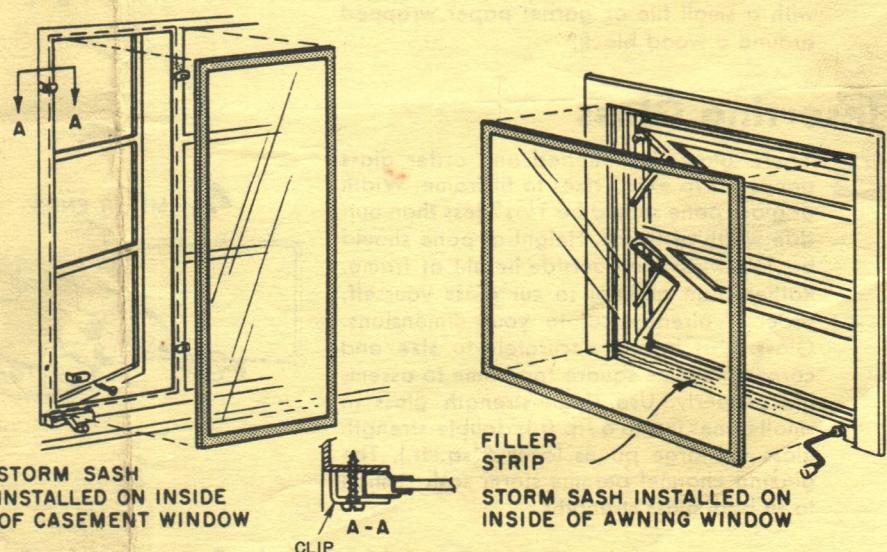
11 To hang storm sash alone use Reynolds Screen Hardware Kit, Item #26. To hang interchangeable storm sash (Instruction Sheet #22) and screens (Instruction Sheet #21) use Reynolds complete hanger set, Item #37. This contains all hangers necessary to hang interchangeable full length or divided frame storm sash and screens.



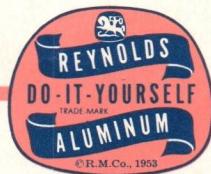
Fitting Sash to Casement or Awning Windows

Most casement windows include provisions for installing screens or storm sash. Use dimensions of screens (if available) as the dimensions for the storm sash. Make up sash and install with clips made from $1/16'' \times 1'' \times 1''$ aluminum angle with screws used for screens. If there are no screens, measure between screw holes in casement frames for width. Subtract $1/8''$ from width and length for clearance. Install sash panels with steel self-tapping screws in holes in frames.

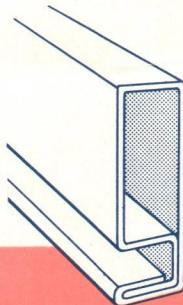
Fit sash around blind stop inside awning window frames. If storm sash interferes with awning window actuator, fit wood filler strip along bottom with hole for actuator or fit sash against jambs inside window trim. Hold sash in place with screws into jambs at sides.



How to make



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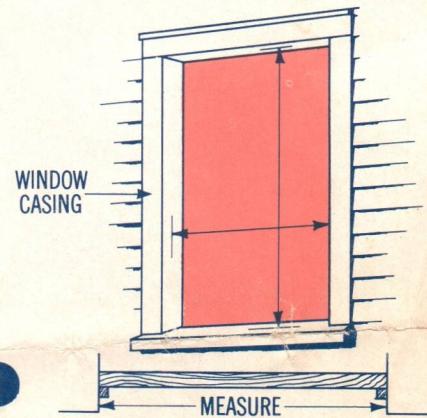


ALUMINUM FRAME SECTION

CONSTRUCTING THE FRAME

Materials: Aluminum frame member section, corner clips, cross brace stock (optional).

1 Measure opening just inside window casing as shown.



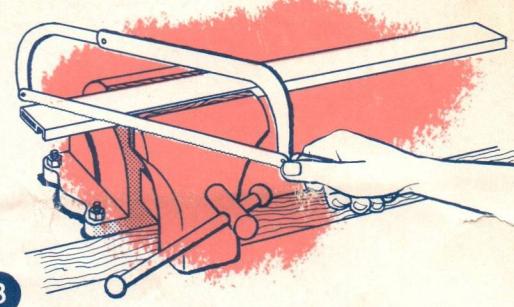
1

2 Mark framing members $\frac{1}{8}$ " shorter than measured width and height of window opening. Make marks on edge opposite groove in the aluminum framing material. Scribe 45° angles in from these marks as shown at right:



2

3 Cut framing members along scribe marks. (Cut with a fine-tooth saw . . . coping or hack saw).



3

4 Smooth all sharp edges with small file or sandpaper.



5

5 Begin ASSEMBLY by using softfaced hammer or a piece of wood to drive corner clip in end of one frame member. Drive other end of same clip into adjoining piece of framing to complete first corner.

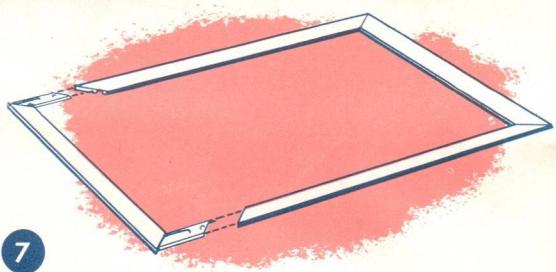
6 Add third framing member to the two just completed, using procedure outlined in (5).

6

ALUMINUM WINDOW SCREENS

AND PLASTIC
STORM SASH

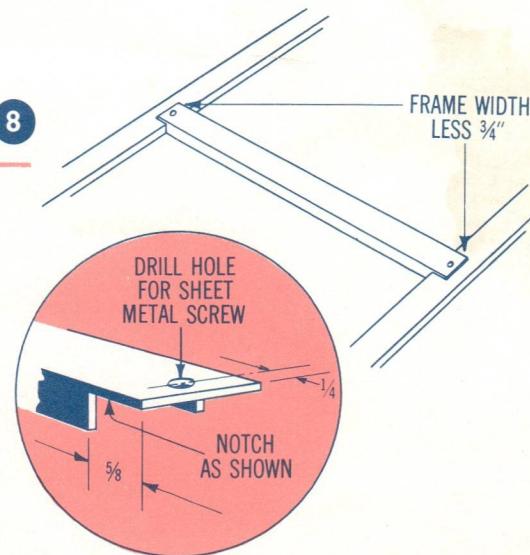
- 7** Insert clips in both ends of fourth framing member and then join into previous completed assembly (6) as shown at the right:



7

- 8** Where frame is larger in area than 6 square feet, make a cross brace as shown, cutting it from cross-brace channel stock available for this purpose:

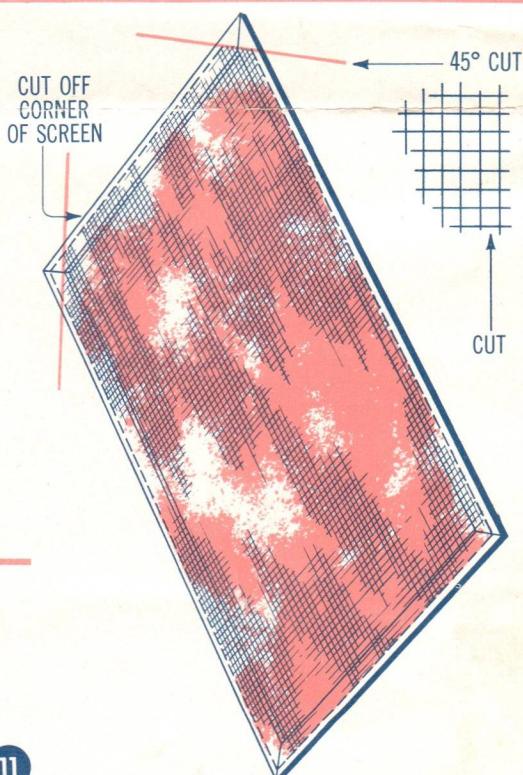
Before installing screen or plastic, attach cross brace by placing in position across back side of frame. Then mark hole positions and pierce through back side of frame with 6-penny nail. Assemble to frame with #6 x $\frac{3}{8}$ " aluminum sheet metal screws with $\frac{1}{8}$ " cut from tip to prevent it from coming out the other side.



- 9**

ATTACHING SCREEN TO FRAME (Use only ALUMINUM screen wire)

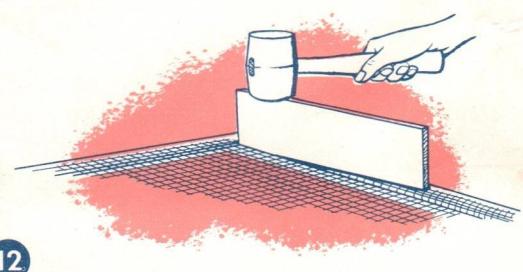
Materials: Aluminum frame, aluminum screen wire, spline material, inexpensive tool for forming screen into groove of frame (available at your dealer.)



- 10** Cut screen cloth to same size as outside dimensions of frame. (Cut between two of the screen wires to keep cuts straight and square.)

11

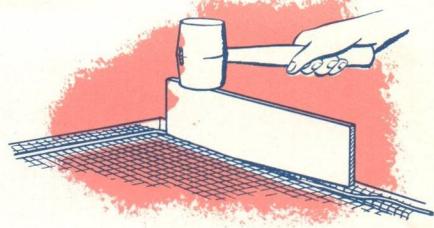
- 11** Place screen over frame (with groove up); weight it to hold in position; cut off corners of screen at 45° angle to corner of groove as shown: (Be sure to keep screen frame square.)



- 12** Form screen into groove, starting in one corner and proceeding down the long side of the frame. Use long edge of forming tool and hammer as shown: (Avoid knocking down vertical edge of screen cloth, resulting from forming.)

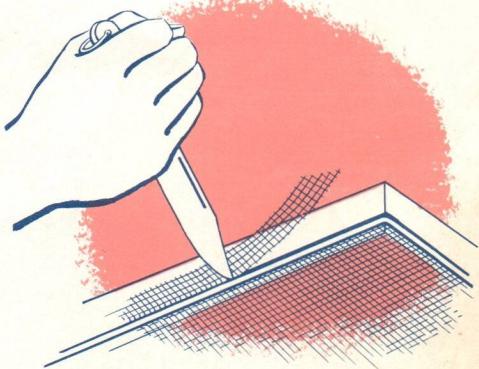
12

- 13** Drive screen spline into groove, using forming tool in horizontal position as shown. Be sure flat surface of tool lays up against the vertical screen cloth. (Avoid knocking down the vertical edge of screen cloth.)



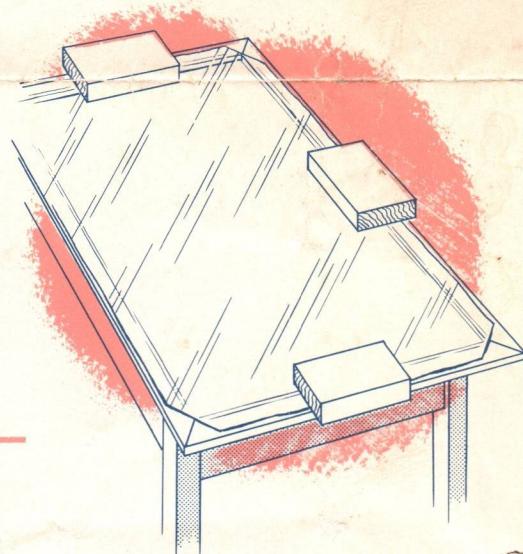
13

- 14** In same manner, form groove on adjacent side of frame and insert spline. Then proceed to attach cloth on around frame. On fourth side, form only 6" of screen cloth at a time and follow up with spline as you go, to assure tight fit.



14

- 15** Trim off excess screen cloth with knife or old razor blade. Attach to house.



15

- 16** Cut clear plastic sheet to same dimensions as outside of frame.



16

- 17** Place over frame and clamp or anchor in place with weights.



17

- 18** On one of the long sides of the frame, lay spline stock over the plastic just above the groove.



18

- 19** Push spline stock down into the groove, carrying the plastic with it. Work from one corner. A thin ruler, a yardstick or a metal forming tool (see item 13 above) will be found handy for this job.

Follow same procedure for adjacent side of frame, applying tension to the plastic to prevent wrinkles and to assure a tight job.

21 In same manner, place splines on around frame.

22 Trim off any excess plastic with razor blade or knife.



22

MOUNTING FRAME TO HOUSE

Materials: Small aluminum angles, wood screws, screen hooks, and screw eyes. Cadmium plated steel also satisfactory.

23 Mark hole positions inside of window casing for mounting small angles. See cross section 23a.

23

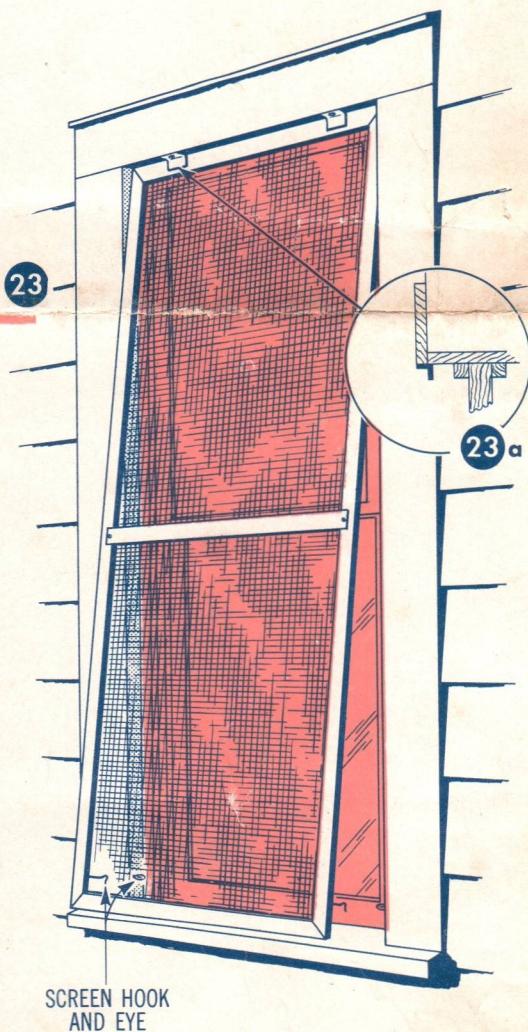
24 Attach small angles with wood screws. See sketch at right.

23

25 Now attach screen hooks to inside surface of frame side member as follows: Punch hole through inside surface of frame member with 6-penny nail.

26 Screw screen hooks into holes just formed. Cut point off screw.

27 Attach screw eyes to inside of window casing in correct position to engage screen hooks.



28 Place screen or storm sash in position and secure in place by engaging screen hooks with screw eyes.



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1.09

1.45

33

Corner

Price List

DESCRIPTION

SUGGESTED RETAIL PRICE

Plain Sheet—36" x 36"	\$2.49 per sheet
Embossed Sheet—36" x 36"	.269 per sheet



Angle—1" x 1" x 1/16"—6 ft. lengths.....	1.89 per length
Angle—3/4" x 3/4" x 1/8"—6 ft. lengths.....	1.69 per length



Aluminum Cold Finished Rod —3/8" dia.—6 ft. lengths.....	1.19 per length
Bar—1/4" x 3/4"—6 ft. lengths.....	1.59 per length
Bar—1/4" x 1"—6 ft. lengths.....	1.98 per length



Tubing—3/8" O.D. x .049—6 ft. lengths....	1.49 per length
Tubing—1" O.D. x .049—6 ft. lengths.....	1.59 per length
Tubing—1 1/4" x .058—6 ft. lengths.....	1.98 per length



Storm Sash Section (for glass) —5 ft. lengths	1.05 per length
Storm Sash Section (for glass) —6 ft. lengths	1.26 per length



Reynolon (Film)—36" x 50 yd. rolls .004" ga. film interleaved with paper.....	.25 lin. foot
Trim Strip—6 ft. lengths.....	.69 per length
Sash Section (for plastic storm sash and screen)—6 ft. lengths.....	.99 per length
Sash Section—complete with Metal Spine } 6 ft. lengths....	1.14 per length
Sash Section—complete with Metal Spine } 8 ft. lengths....	1.49 per length
Sash Section—complete with Metal Spine } 12 ft. lengths....	2.19 per length
Sash Section Brace (for plastic storm sash and screen)—6 ft. lengths.....	.75 per length
Plastic Spine—100 ft. per spool.....	.025 lin. foot
Corner Clips (for plastic storm sash and screen)33 for 4 clips (banded)
Screen Forming Tool—Size 2" x 6".....	.27 per tool



Machine Screws with Hex Nuts.....	.25 per bag
Flat Washers25 per bag
Sheet Metal Screws, Wood Screws and Rivets.....	.15 per bag



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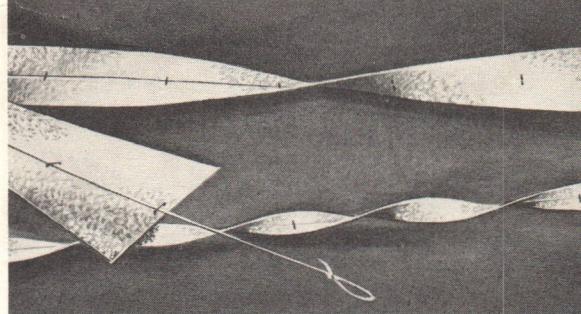


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Other things you can make WITH **REYNOLDS ALUMINUM DO-IT-YOURSELF INSULATION**

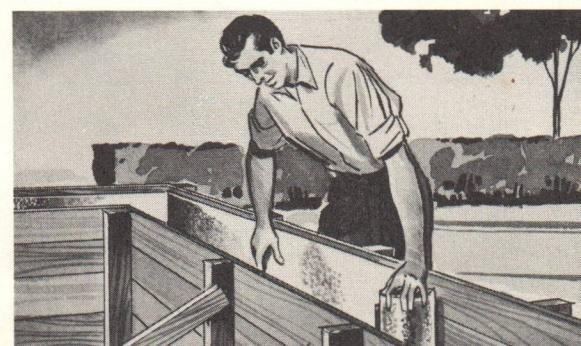
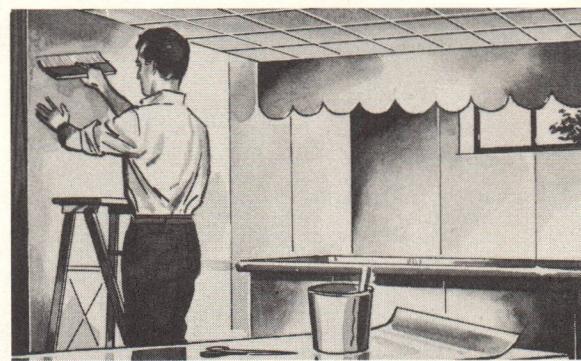
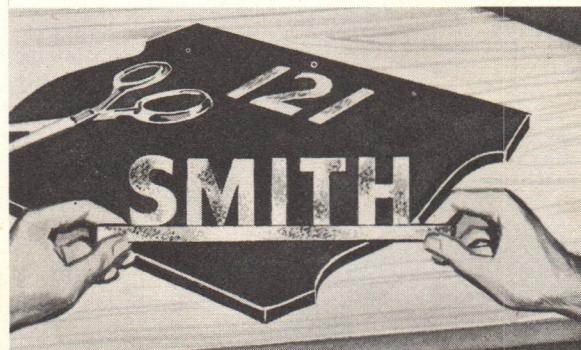
CLOSET LINERS made with this excellent vapor barrier material help to keep out dampness and thus reduce mildew. It makes excellent moth proofing and its bright surface aids visibility in dimly lit closets.

WIND WHIRLERS are easily made from reflective insulation and twine. Cut into long strips approximately 4" wide and staple to twine. Use as eye catchers for stores, filling stations, etc., or as weatherproof decorations for lawn parties.

HOUSE NUMBERS can be cut from aluminum insulation and attached to mail box or name sign. Use weatherproof glue*. Name is more legible against dark background.

GAME ROOM DECORATIONS of every description are easy with this bright sturdy material. Its moisture resistant qualities make it ideal for wall covering in basements. It also makes an ideal covering for the front of a bar. Cut-out designs enliven ceiling and walls.

LINING CONCRETE FORMS is fast work with Reynolds *Do-It-Yourself* Insulation. Stapled in place it assures a smooth finished surface, protects the forms so that they may be used again and again.



*Where glue is used, we suggest composition tile cement.

More Do-it-yourself Ideas!

Lining pantry shelves, linen closets, fruit and vegetable bins • application behind radiators • insulation and moisture protection for incubators, brooders, seed bins and tobacco curing barns • retainer and moisture protection for rock wool or batt insulation • insulation and vapor proofing for refrigerators and locker storage plants • air ducts for radiant heating.

REYNOLDS METALS COMPANY
General Sales Office • Louisville 1, Ky.

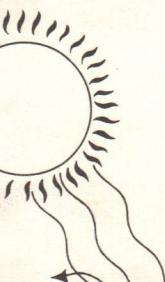


INSULATE YOUR ATTIC THIS WEEK END FOR LESS THAN \$50⁰⁰

(AVERAGE
INSTALLATION)

WITH

REYNOLDS DO-IT-YOURSELF INSULATION



Ventilation above insulation is important.

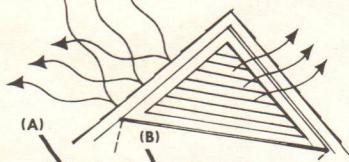


FIG. 1

Before applying insulation, strip face of rafters as clean as possible. Pull out unnecessary nails, brackets, etc.

If collar joists (A) are missing, install them so that insulation may be applied to a false ceiling. Never run insulation to ridge pole (B).

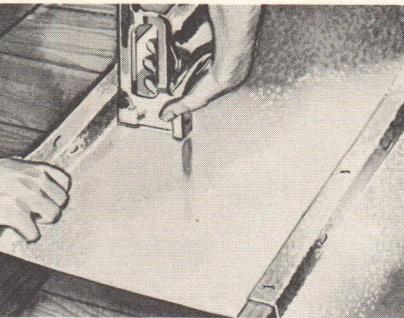


FIG. 4

rafters as shown above. Since each side of reflective insulation should face an air space of at least $\frac{3}{4}$ ", it will always be necessary to indent insulation whenever a finished surface is to be applied over it. Material may be indented by running

Reynolds Do-It-Yourself Insulation is composed of "solid sheets" of Lifetime Aluminum bonded to sides of tough kraft paper for ease of handling. Roll width: 36". Coverage: 250 sq. ft. per roll.



Only tools needed are knife, scissors, stapler (or tack hammer) and rule.



FIG. 2

Always apply insulation parallel to rafters or framing members. Measure, then unroll insulation on floor and cut to correct length. The old carpentry rule of measuring twice before cutting applies here, especially if you intend to cut sev-



FIG. 3

eral equal lengths at one time.

Insulation is simply stapled (or tacked) over roof rafters. 36" width permits use over rafters or studs on 16" or 24" centers. If attic you are insulating is to be finished with interior walls bow insulation between

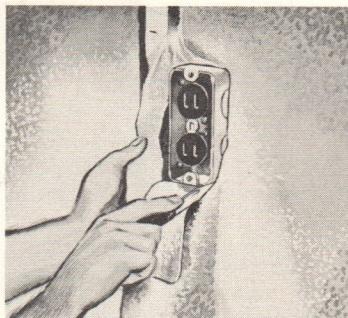


FIG. 5

finger down each side of stud and bending.

Make sure all laps and joints are tight. Cut out for light fixtures, around windows, shelves, etc. as you progress.



FIG. 6

If attic has a side wall, run insulation down vertical framing as shown in Fig. 3. If entire attic area is open, run insulation down to eaves, fold back toward you and staple to top of attic floor or floor joists.

See other side for more REYNOLDS Do-It-Yourself Projects . . .

#16A - Channel - 2 lengths - @ .99 = 1.98
#16 - Channel 1 length @ .75 = .75
#30A - Storm bash section - 8 lengths @ 1.45 = 10.15
#24A - Screen frame section - 8 lengths @ 1.49 = 11.92
#25 - Corner locks - 14 sets @ .33 = 4.82
#37 - Hardware kit - 6 @ .98 = 5.88
#21G - Screw $\frac{1}{2} \times \frac{3}{8}$ " - 36 @ = 25.50